

IN THE CLAIMS

1. A binder strip cassette comprising:
 - a cassette housing;
 - 5 a multiplicity of elongated binder strips, each of said binder strips including a flexible substrate and an adhesive disposed on the substrate;
 - a flexible elongated carrier supporting said binder strips, with said binder strips being disposed along a length of the elongated carrier in an end-to-end arrangement, with said elongated carrier and said binder strips being wound to
 - 10 form a binder strip roll;
 - a mounting mechanism which rotatably mounts the binder strip roll within the cassette housing;
 - a drive apparatus for unwinding the binder strip roll to provide an unwound portion of the binder strip roll;
 - 15 a separating apparatus disposed within the cassette housing for separating the binder strips from the elongated carrier of the unwound portion of the binder strip roll to produce a separated binder strip, with the unwinding by the drive apparatus causing the separated binder strip to be at least partially ejected through a binder strip eject opening in the cassette housing.
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2. The binder strip cassette of Claim 1 wherein the separating apparatus includes a separating member which receives the elongated carrier along an input path and outputs the elongated carrier along an output path, with said input path and said output path being disposed at an angle relative to one
- 25 another such that one of the binder strips on the carrier begins to separate from the carrier when the carrier changes movement from the input to the output path.
3. The binder strip cassette of Claim 2 wherein the drive apparatus
- 30 includes a take up roller disposed within the cassette housing, which receives the elongated carrier after the elongated carrier has passed the separating member.

4. The binder strip cassette of Claim 3 wherein the drive apparatus includes a drive connection to the take up roller so that the take up roller can be rotatably driven by a drive source external to the cassette housing.
- 5 5. The binder strip cassette of Claim 4 further including a guide mechanism positioned to guide the unwound portion from the binder strip roll to the separating apparatus along a guide path.
- 10 6. The binder strip cassette of Claim 5 wherein the guide mechanism includes an idle roller mounted for rotation within the cassette housing.
7. The binder strip cassette of Claim 5 wherein the guide mechanism includes a guide member that engages the unwound portion and causes the
15 unwound portion to move between first and second spaced apart points on the guide path, with that part of the guide path between the first and second points being non-linear.
8. The binder strip cassette of Claim 7 where the first point is proximate
20 the binder strip roll.
9. The binder strip cassette of Claim 8 wherein the guide mechanism includes an elongated guide member having a first contact member that engages the binder strip roll proximate the first point.
- 25 10. The binder strip cassette of Claim 9 wherein the first element is captured between the binder strip roll and the unwound portion.
11. The binder strip cassette of Claim 10 wherein the binder strips and
30 elongated carrier are positioned relative to one another on the binder strip roll such that the elongated carrier is positioned on an exterior of said binder strip roll and wherein the first element includes a first surface which engages the

elongated carrier on the binder strip roll and a second surface opposite the first surface which engages binder strips on the unwound portion.

12. The binder strip cassette of Claim 11 wherein the second surface of the
5 first element defines at least part of the non-linear guide path.

13. The binder strip cassette of Claim 12 wherein the elongated guide
member defines a guide surface which, together with the second surface of
the first element, defines substantially all of the non-linear guide path.
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14. The binder strip cassette of Claim 11 wherein the elongated guide
member is mounted for movement and wherein the contact member continues
to engage the binder strip roll as the binder strip roll is depleted.

15. The binder strip cassette of Claim 14 wherein the elongated guide
member is pivotally mounted to permit the movement.
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16. The binder strip cassette of Claim 15 further including a pivot mount
supporting said elongated guide member and wherein the second point is
20 proximate a region where the elongated guide member is secured to the pivot
mount.

17. The binder strip cassette of Claim 1 wherein said elongated carrier
includes encoded information regarding the binder strip roll and wherein the
25 encoded information is readable from a location external to the cassette
housing.

18. The binder strip cassette of Claim 17 where the encoded information is
optically encoded information and wherein the cassette housing includes an
opening by which the elongated carrier passes so that the encoded information
30 can be read through the opening.

19. The binder strip cassette of Claim 1 wherein the binder strips are secured to the elongated carrier by an adhesive.

20. The binder strip cassette of Claim 19 wherein the binder strips are ejected through the eject opening with a trailing end of the binder strip being ejected last and wherein the adhesive is disposed intermediate the elongated carrier and the binder strips at various locations except for a region that comprises a last 20% of a length of the binder strip at the trailing end where said adhesive is absent.

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21. A binder strip cassette comprising:
a cassette housing;
a binder strip roll comprising layers of binder strips separated by layers
15 of a flexible elongated carrier;
a mounting mechanism which rotatably mounts the binder strip roll within the cassette housing;
a drive apparatus for unwinding the binder strip roll to provide an unwound portion of the binder strip roll;
20 a separating apparatus disposed within the cassette housing for separating the binder strips from the elongated carrier of the unwound portion of the binder strip roll to produce a separated binder strip, with the unwinding by the drive apparatus causing the separated binder strip to be at least partially ejected through a binder strip eject opening in the cassette housing.

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22. The binder strip cassette of Claim 21 wherein the binder strips of the binder strip roll are not adhered to the elongated carrier.

23. The binder strip cassette of Claim 22 further including a guide
30 mechanism disposed so as to apply a coupling force to the unwound portion of the binder strip roll at least at one point along a guide path between the binder

strip roll and the separating apparatus so as to bias the binder strip and elongated carrier together.

24. The binder strip cassette of Claim 23 wherein the at least one point
5 includes a first point proximate the binder strip roll.

25. The binder strip cassette of Claim 24 wherein the coupling force is applied along substantially the entire guide path.

10 26. The binder strip cassette of Claim 25 wherein the guide mechanism includes an elongated guide member having a contact member that is captured between the binder strip roll and the unwound portion.

27. The binder strip cassette of Claim 26 wherein the elongated carrier and
15 the binder strips are positioned relative to one another on the roll such that the elongated carrier is disposed on an exterior portion of the roll and wherein the contact member contacts the elongated carrier of the binder strip roll.

28. The binder strip cassette of Claim 27 wherein the elongated carrier is
20 mounted for movement so that the contact member continues to contact the binder strip roll as the binder strip roll is depleted.

29. A binder strip cassette comprising:
a cassette housing;
25 a binder strip roll comprising layers of binder strips separated by layers of a flexible elongated carrier;
a mounting mechanism which rotatably mounts the binder strip roll within the cassette housing;
a drive apparatus for unwinding the binder strip roll to provide an
30 unwound portion of the binder strip roll;
a take up roller disposed within the cassette housing;

a separating apparatus disposed within the cassette housing for separating the binder strips from the elongated carrier of the unwound portion of the binder strip roll to produce a separated binder strip, with the unwinding by the drive apparatus causing the separated binder strip to be at least
5 partially ejected through a binder strip eject opening in the cassette housing and with the elongated carrier of the unwound portion being wound around the take up roller.

30. The binder strip cassette of Claim 29 wherein the drive apparatus
10 includes a connector on the take up roller so that the take up roller can be rotationally driven by a drive source external to the cassette housing.

31. The binder strip cassette of Claim 30 further including optical encoding disposed on the elongated carrier and wherein the cassette housing includes an
15 opening positioned such that the encoding can be read by a reader external to the housing.

32. The binder strip cassette of Claim 31 wherein the housing opening is positioned such that the optical encoding can be read on the elongated carrier
20 as the carrier moves from the separating apparatus to the take up roller.